



# January 31, 2014 Exceptional Event Documentation Addendum

The Clean Air Act (CAA) recognizes that it may not be appropriate to use monitoring data influenced by "exceptional" events collected by the ambient air quality monitoring network when making certain regulatory determinations. The October 3, 2016 revisions to CFR sections 50.1 and 50.14 "Treatment of air quality monitoring data influenced by exceptional events" returns to three core statutory elements that align closely with the CAA section 319(b). These core elements (listed below) are supported within this document and have been broken down by sub-elements below to demonstrate compliance with the revisions to the rule "Treatment of air quality monitoring data influenced by exceptional events".

1. That the event affected air quality in such a way that there exists a clear causal relationship between the specific event and the monitored exceedance or violation.
2. The event was not reasonably controllable or preventable
3. The event was caused by human activity that is unlikely to recur at a particular location or was a natural event.

The January 31, 2014 EE Demonstration was originally constructed under the 2007 rule therefore it is very important to demonstrate that this EE demonstration meets any new requirements imposed by the October 2016 revision. In an effort to assure that the EE Demonstration for January 31, 2014 meets any new requirement imposed by the October 2016 revision, the Air District has identified the code sections that either were revised or are new below. In addition, the Air District has provided the section or sections where the current EE Demonstration contains language that specifically addresses the revised or new requirement. Where language is contained in several sections the Air District has included a brief summary explaining the connection. Those sections that are in italic's represent revisions to the rule that cannot be applied because the original demonstration process followed the prior rule, these are marked New Process (NP).

Finally, the current guidance, "Interim Guidance on the Preparation of Demonstrations in Support of Requests to Exclude Ambient Air Quality Data Affected by High Winds Under the Exceptional Events Rule" dated May 2013, has not been revised to reflect the revisions to the new EE Rule. Where there is a conflict between the existing May 2013 guidance and the revised regulation the regulation supersedes.



## TITLE 40 CFR PART 50 § 50.14

### (a) Requirements - (1) Scope (i)

*This section applies to the treatment of data showing exceedances or violations of any national ambient air quality standard for purposes of the following types of regulatory determinations by the Administrator:*

#### A. Designation (CCA Section 107(d)(1)) or redesignation (CCA Section 107(d)(3))

This section of the Exceptional Event (EE) Demonstration for January 31, 2014 explains the 3 year and 12 month submittal requirements. While the three 3 year and 12 month requirement was removed with the October 2016 revision the requirement to disclose the impact of a regulatory decision with the submittal of the EE demonstration still is required. The submittal of the January 31, 2014 is expected to have a regulatory implication upon the submittal of the PM<sub>10</sub> State Implementation Plan (SIP) in 2017. (Page 3 section I.2.d)

- B. Assignment/Re-Assignment Classification category to a nonattainment area - comparison to design values  
N/A
- C. Determination that a nonattainment area attained the level of appropriate NAAQS by a specified deadline  
N/A
- D. Determination that an area has data for the specific NAAQS which qualify the area for an attainment date extension – N/A
- E. Determination under CAA section 110(k)(5) that SIP is inadequate under the requirements of CAA section 110 – N/A
- F. Other actions case-by-case basis determined by the Administrator – N/A

### (b) Determinations by the Administrator (5) High wind dust events. (i)

*The Administrator shall exclude data from use in determinations of exceedances and violations, where a State demonstrates to the Administrator's satisfaction that emissions from a high wind dust event caused a specific air pollution concentration in excess of one or more national ambient air quality standards at a particular air quality monitoring location and otherwise satisfies the requirements of this section provided that such emissions are from high wind dust events. (Pages 13-18 section II.3)*

Title 40 part 50.1 defines a "high wind dust event" as an event that includes the high-speed wind and the dust that the wind entrains and transports to a monitoring site. The January 31, 2014 EE demonstration compiles evidence that demonstrates that as early as the evening of January 30, 2014 wind speeds associated with a large low pressure system impacted the Brawley monitor resulting in an exceedance on January 31, 2014. Appendix A of the January 31, 2014 EE demonstration contains copies of the National Weather Service forecast predicting west winds with gusts as high as 30 mph. (Appendix A)

The EE demonstration for January 31, 2014 contains sections that in its entirety provide evidence that the "high wind dust event" affected air quality. Both the historical norm section, which discusses the historical concentration data, and the clear causal section bring together the argument that the "high wind dust event" impacted the Brawley monitor causing an exceedance. The analysis contained in the January 31, 2014 demonstration contains analyses and statistics showing how the observed event concentration compares to the distribution or time series of historical concentrations of PM<sub>10</sub>. The January 31, 2014 demonstration contains graphs, time series, and visibility graphs, measurements from regulatory and non-regulatory monitoring stations, satellite imagery and appendices with special weather statements and advisories, graphs showing wind direction the path of the emissions from the identified source area. (Pages 13-18 section II.3; Pages 19-22; 28-35 section III & V; Appendix's B and C)

In addition, the January 31, 2014 demonstration provides evidence that the event was a "natural event" that was not reasonably controllable and preventable. Finally, the January 31, 2014 EE demonstration provides



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evidence that all known anthropogenic sources, upwind of the affected monitor, were controlled but where overwhelmed by the "natural event". (Pages 23-27 section IV; Appendix D)

**(b) Determinations by the Administrator (5) High wind dust events. (ii)**

*The Administrator will consider high wind dust events to be natural events in cases where windblown dust is entirely from natural undisturbed lands in the area or where all anthropogenic sources are reasonably controlled as determined in accordance with paragraph (b)(8) of this section.*

Title 40 part 50.1 defines a "natural event" as an event and its resulting emissions, which may recur at the same location, in which human activity plays little or no direct causal role. The definition further explains that anthropogenic sources that are reasonably controlled are considered to not play a direct role in causing emissions. As explained below, the January 31, 2014 EE demonstration compiles evidence that demonstrates that all known anthropogenic sources in Imperial County applied reasonable measures but where overwhelmed by the "natural event". The Introduction and the Conceptual Model sections of the January 31, 2014 EE demonstration provides the background topographical and climatologically information surrounding the impacted area and provides trajectory information identifying the areas impacted by the "natural event". (Pages 23-27 section IV)

**(b) Determinations by the Administrator (5) High wind dust events. (iii)**

*The Administrator will accept a high wind threshold of a sustained wind of 25 mph for areas in the States of Arizona, California, Colorado, Kansas, Nebraska, Nevada, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, Utah, and Wyoming provided this value is not contradicted by evidence in the record at the time the State submits a demonstration. In lieu of this threshold, States can identify and use an Administrator-approved alternate area-specific high wind threshold that is more representative of local or regional conditions, if appropriate. (Pages 13-18 section II.3)*

Title 40 part 50.1 defines a "high wind threshold" as the minimum wind speed capable of causing particulate matter emissions from natural undisturbed lands in the area affected by the "high wind dust event". Current guidance indicates that EPA will accept that high winds "could be the cause of a high 24-hour average PM<sub>10</sub> or PM<sub>2.5</sub> concentration" if there is at least one full hour where the hourly average wind speed is above the area-specific high wind threshold.<sup>1</sup> EPA further recognizes that sources of wind speed data employ "short-period" averages generally accepting that the hourly average wind speed was above the threshold if the reported short-period wind speed was above the threshold. In addition, current guidance indicates that wind speed data need not necessarily have to be at the location of the exceedance but the data should represent the source area generating the emissions. Finally, guidance states that EPA generally recommends using National Weather Service data or the National Climate Data Center.

The January 31, 2014 EE demonstration provides evidence from Airport, regulatory and non-regulatory meteorological stations that as early as January 30, 2014 elevated winds, in some cases in excess of 25mph, suspended particulate matter into the air. Because winds continued elevated into January 31, 2014 elevated particulate matter impacted the Niland and Brawley stations, which resulted in an exceedance at the Brawley station. See attached QCLCD reports for the Imperial County Airport and the Naval Air Facility Airport. (Appendix A)

**(b) Determinations by the Administrator (5) High wind dust events. (iv)**

*In addressing the requirements set forth in paragraph (c )(3)(iv)(D) of this section regarding the not reasonably preventable criterion, the State shall not be required to provide a case-specific justification for a high wind dust event. (Pages 13-18 section II.3)*

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<sup>1</sup> USEPA, "Interim Guidance on the Preparation of Demonstration in Support of Requests to Exclude Ambient Air Quality Data Affected by High Winds under the Exceptional Events Rule", May 2013



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The January 31, 2014 EE demonstration provides evidence that a "high wind event" occurred as early as January 30, 2014 and continued into January 31, 2014 impacting the Brawley monitor. The January 31, 2014 EE demonstration provides evidence that a "high wind event" occurred as a result of a large low pressure system that moved through southern California as early as the evening of January 30, 2014. Appendix A of the January 31, 2014 EE demonstration provides copies of high wind warnings as they were issued by the San Diego weather office. As a result, the meteorological event, the large low pressure system and the resulting high winds were not preventable. **(Appendix A)**

**(b) Determinations by the Administrator (5) High wind dust events. (v)**

*With respect to the not reasonably controllable criterion of paragraph (c )(3)(iv)(D) of this section, dust controls on an anthropogenic source shall be considered reasonable in any case in which the controls render the anthropogenic source as resistant to high winds as natural undisturbed lands in the area affected by the high wind dust event. The Administrator may determine lesser controls reasonable on a case-by-case basis.*

Both permitted and non-permitted sources are required to comply with Regulation VIII requirements that address fugitive dust emissions. The identified permitted sources are Aggregate Products, Inc., US Gypsum Quarry, Val-Rock, Inc., Granite Construction, US Gypsum Plaster City, and Laidlaw Environmental Services. Non-permitted sources include the wind farm known as Ocotillo Express, and a solar facility known as CSolar IV West. In addition, the desert region is under the jurisdiction of the Bureau of Land Management and the California Department of Parks. All these sources are required to comply with Regulation VIII at all times. Regulation VIII was approved as BACM by EPA with an effective date of May 22, 2013. **(Attached Figs ADD-5 and ADD-6 Maps; Pages 23-27 section IV)**

**(b) Determinations by the Administrator (5) High wind dust events. (vi)**

*For large-scale and high-energy high wind dust events, the Administrator will generally consider a demonstration documenting the nature and extent of the event to be sufficient with respect to the not reasonably controllable criterion of paragraph (c )(3)(iv)(D) of this section provided the State provides evidence showing that the event satisfies the following:*

- (A) The event is associated with a dust storm and is the focus of a Dust Storm Warning*
- (B) The event has sustained winds that are greater than or equal to 40 miles per hour*
- (C) The event has reduced visibility equal to or less than 0.5 miles.*

**(Section does not apply to the January 31, 2014 EE demonstration)**

**(b) Determinations by the Administrator (8) Determinations with respect to the not reasonably controllable or preventable criterion. (i)**

*The not reasonably controllable or preventable criterion has two prongs that the State must demonstrate: prevention and control.*

An event is considered not reasonably preventable if reasonable measures to prevent the event were applied at the time of the event. Similarly, an event is considered not reasonably controllable if reasonable measures to control the impact of the event on air quality were applied at the time of the event. The final guidance issued October 2016 explains that when addressing the "not reasonably controllable or preventable" criterion air agencies should identify the natural and anthropogenic sources of emissions causing and contributing to the monitored exceedance. Identify the relevant SIP or other enforceable control measures in place for the identified sources as well as the implementation status of the controls and if applicable, provide evidence of effective implementation and enforcement of reasonable controls.

**(b) Determinations by the Administrator (8) Determinations with respect to the not reasonably controllable or preventable criterion. (ii)**

*The Administrator shall determine that an event is not reasonably preventable if the State shows that reasonable measures to prevent the event were applied at the time of the event.*



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An event is not reasonably preventable if reasonable measures to prevent the event were applied at the time of the event. However, for "high wind events" when PM<sub>10</sub> concentrations are due to dust raised by high winds from desert areas whose sources are controlled with Best Available Control Measures (BACM) then the event is a "natural event" where human activity played little or no direct causal role and thus not preventable. The January 31, 2014 EE demonstration provides evidence that a large low pressure system moved into southern California late January 30, 2014 suspending particulate matter and keeping the dust in the air well into January 31, 2014. Thus this event was not preventable. (Attached Figs ADD-5 and ADD-6 Maps; Pages 23-27 section IV)

**(b) Determinations by the Administrator (8) Determinations with respect to the not reasonably controllable or preventable criterion. (iii)**

*The Administrator shall determine that an event is not reasonably controllable if the State shows that reasonable measures to control the impact of the event on air quality were applied at the time of the event.*

An event is not reasonably controllable if reasonable measures to control the impact of the event on air quality are applied at the time of the event. Both permitted and non-permitted sources are required to comply with Regulation VIII requirements that address fugitive dust emissions. The identified permitted sources are Aggregate Products, Inc., US Gypsum Quarry, Val-Rock, Inc., Granite Construction, US Gypsum Plaster City, and Laidlaw Environmental Services. Non-permitted sources include the wind farm known as Ocotillo Express, and a solar facility known as CSolar IV West. In addition, the desert region is under the jurisdiction of the Bureau of Land Management and the California Department of Parks. All these sources are required to comply with Regulation VIII at all times. Regulation VIII was approved as BACM by EPA with an effective date of May 22, 2013. (Attached Figs ADD-5 and ADD-6 Maps; Pages 23-27 section IV)

**(b) Determinations by the Administrator (8) Determinations with respect to the not reasonably controllable or preventable criterion. (iv)**

*The Administrator shall assess the reasonableness of available controls for anthropogenic sources based on information available as of the date of the event.*

According to the October 2016 revision the EPA would consider enforceable control measures that were approved by the EPA as part of a State Implementation Plan. The demonstration must be submitted within 5 years of the date of approval and must address the event-related pollutant and all sources necessary for fulfill the requirements of the Clean Air Act (CAA) with respect to all anthropogenic sources that may have contributed to the event-related emissions. The Imperial County Air Pollution Control District adopted Regulation VIII October of 2012 with approval by EPA of the adopted rules as BACM. The effective date of the rule approval was May 22, 2013. Regulation VIII addresses the desert open areas managed by BLM, California Department of Parks, Construction, Open Areas, Track Out, Paved and Unpaved roads and Agricultural Operations. All stationary sources are required to keep dust emissions controlled.

The January 31, 2014 EE demonstration identifies the Sonoran desert to the west of the Brawley monitor as the primary source of dust emissions. This addendum includes a Map where identified stationary sources are identified. Non stationary sources include renewable energy facilities, one wind farm and a solar farm. The remaining area is comprised of managed lands by the Bureau of Land Management and the California Department of Parks and the United States Military. Regulation VIII as approved by EPA with an effective date of May 22, 2013 applies to all these sources and is in force on any given day. The January 31, 2014 EE demonstration contains a section with the results of the review of sources either permitted or not permitted. The section identifies any complains and resolutions. For the January 31, 2014 EE demonstration identified a single residential waste burning complaint that was determined not to have an impact on the exceedance in Brawley because the illegal burn was located upwind of the Brawley monitor that is the plumes would have been blowing away from the monitor.

(Attached Figs ADD-5 and ADD-6 Maps; Pages 23-27 section IV)



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**(b) Determinations by the Administrator (8) Determinations with respect to the not reasonably controllable or preventable criterion. (v)**

*Except where a State, tribal or federal air agency is obligated to revise its state implementation plan, tribal implementation plan, or federal implementation plan, the Administrator shall consider enforceable control measures implemented in accordance with a state implementation plan, tribal implementation plan, or federal implementation plan, **approved by the EPA within 5 years of the date of the event**, that address the event-related pollutant and all sources necessary to fulfill the requirements of the Clean Air Act for the state implementation plan, tribal implementation plan, or federal implementation plan to be reasonable controls with respect to all anthropogenic sources that have or may have contributed to the monitored exceedance or violation.*

According to the October 2016 revision the EPA would consider enforceable control measures that were approved by the EPA as part of a State Implementation Plan. The demonstration must be submitted within 5 years of the date of approval and must address the event-related pollutant and all sources necessary for fulfill the requirements of the Clean Air Act (CAA) with respect to all anthropogenic sources that may have contributed to the event-related emissions. The Imperial County Air Pollution Control District adopted Regulation VIII October of 2012 with approval by EPA of the adopted rules as BACM. The effective date of the rule approval was May 22, 2013. Regulation VIII addresses the desert open areas managed by BLM, California Department of Parks, Construction, Open Areas, Track Out, Paved and Unpaved roads and Agricultural Operations. All stationary sources are required to keep dust emissions controlled in accordance to Regulation VIII. The Imperial County Air Pollution Control District is not obligated to revise or adopt a State Implementation Plan (SIP).

While the January 31, 2014 EE demonstration identifies that the submission of the EE demonstration would be used for regulatory purposes, the submittal of a PM<sub>10</sub> SIP in 2017, there is currently no legal requirement or obligation, such as a SIP call, for the Imperial County Air Pollution Control District to submit a PM<sub>10</sub> SIP.

**(Attached Figs ADD-5 and ADD-6 Maps; Pages 23-27 section IV)**

**(b) Determinations by the Administrator (8) Determinations with respect to the not reasonably controllable or preventable criterion. (vi)**

*Where a State, tribal or federal air agency is obligated to revise its state implementation plan, tribal implementation plan, or federal implementation plan, the deference to enforceable control measures identified in paragraph (b)(8)(v) of this section shall remain only until the due date of the required state implementation plan, tribal implementation plan, or federal implementation plan revisions. However, where an air agency is obligated to revise the enforceable control measures identified in paragraph (b)(8)(v) of this section in its implementation plan as a result of an action pursuant to Clean Air Act section 110(k)(5), the deference, if any, to those enforceable control measures shall be determined on a case-by-case basis.*

**(Section does not apply to the January 31, 2014 EE demonstration)**

**(b) Determinations by the Administrator (8) Determinations with respect to the not reasonably controllable or preventable criterion. (vii)**

*The Administrator shall not require a State to provide case-specific justification to support the not reasonably controllable or preventable criterion for emissions-generating activity that occurs outside of the State's jurisdictional boundaries within which the concentration at issue was monitored. In the case of a tribe treated as a state under 40 CFR 49.2 with respect to exceptional events requirements, the tribe's jurisdictional boundaries for purposes of requiring or directly implementing emission controls apply. In the case of a federal land manager or other federal agency submitting a demonstration under the requirements of this section, the jurisdictional boundaries that apply are those of the State or the tribe depending on which has jurisdiction over the area where the event has occurred.*

**(Section does not apply to the January 31, 2014 EE demonstration)**

**(b) Determinations by the Administrator (8) Determinations with respect to the not reasonably controllable or preventable criterion. (viii)**





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*In addition to the provisions that apply to specific event types identified in paragraphs (b)(3)(ii) and (b)(5)(i) through (iii) of this section in addressing the requirements set forth in paragraph (c)(3)(iv)(D) of this section regarding the not reasonably controllable or preventable criterion, the State must include the following components:*

- (A)** *Identification of the natural and anthropogenic sources of emissions causing and contributing to the monitored exceedance or violation, including the contribution from local sources*

The January 31, 2014 EE demonstration identifies the sonoran desert to the west of the Brawley monitor as the primary source of dust emissions. This addendum includes a Map where identified stationary sources are identified. Non stationary sources include renewable energy facilities, one wind farm and a solar farm. The remaining area is comprised of managed lands by the Bureau of Land Management and the California Department of Parks and the United States Military. **(Attached Figs ADD-5 and ADD-6 Maps)**

- (B)** *Identification of the relevant state implementation plan, tribal implementation plan, or federal implementation plan or other enforceable control measures in place for the source identified in paragraph (b)(8)(vii)(A) of this section and the implementation status of these controls.*

The Imperial County Air Pollution Control District adopted Regulation VIII October of 2012 with approval by EPA of the adopted rules as BACM. The effective date of the rule approval was May 22, 2013. Regulation VIII addresses the desert open areas managed by BLM, California Department of Parks, Construction, Open Areas, Track Out, Paved and Unpaved roads and Agricultural Operations. All stationary sources are required to keep dust emissions controlled. The Imperial County Air Pollution Control District is not obligated to revise or adopt a State Implementation Plan (SIP). **(Pages 23-27 section IV)**

- (C)** *Evidence of effective implementation and enforcement of the measures identified in paragraph (b)(8)(vii)(B)*

The January 31, 2014 EE demonstration contains a section with the results of the review of sources either permitted or not permitted. The section identifies any complains and resolutions. For the January 31, 2014 EE demonstration identified a single residential waste burning complaint that was determined not to have an impact on the exceedance in Brawley because the illegal burn was located upwind of the Brawley monitor that is the plume would have been blowing away from the monitor. **(Page 26 section IV.1.c)**

- (D)** *The provisions in this paragraph shall not apply if the provisions in paragraph (b)(4), (b)(5)(vi), or (b)(6) of this section apply.*

The January 31, 2014 EE demonstration is a "high wind" demonstration and not a Wildfire, Large-scale and high-energy high wind dust event, or a Stratospheric Intrusion.

**(c) Schedules and procedures. (2) Initial notification of potential exceptional event. (i)**

*A State shall notify the Administrator of its intent to request exclusion of one or more measured exceedances of an applicable national ambient air quality standard as being due to an exceptional event by creating an initial event description and flagging the associated data that have been submitted to the AQS database and by engaging in the Initial Notification of Potential Exceptional Event process as follows:*

- (A)** *The State and the appropriate EPA Regional office shall engage in regular communications to identify those data that have been potentially influenced by an exceptional event, to determine whether the identified data may affect a regulatory determination and to discuss whether the State should develop and submit an exceptional events demonstration according to the requirements in this section.*

The January 31, 2014 EE demonstration discussed the initial notification process by the Imperial County Air Pollution Control District. The initial notification was submitted to the California Air Resources Board May 28,



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2015 under the provisions of the 2007 rule this was in advance of the revision which occurred October 2016. However, the Imperial County Air Pollution Control District had consultations with the California Air Resources before moving forward. Under the prior 2007 rule the Imperial County Air Pollution Control District did submit an initial EE demonstration for comment and review to both USEPA and CARB

- (B)** *For data that may affect an anticipated regulatory determination or where circumstances otherwise compel the Administrator to prioritize the resulting demonstration, the Administrator shall respond to a States' Initial Notification of Potential Exceptional Event with a due date for demonstration submittal that considers the nature of the event and the anticipated timing of the associated regulatory decision;*

The January 31, 2014 EE demonstration discussed the initial notification process by the Imperial County Air Pollution Control District. The initial notification was submitted to the California Air Resources Board May 28, 2015 under the provisions of the 2007 rule this was in advance of the revision which occurred October 2016. However, the Imperial County Air Pollution Control District had consultations with the California Air Resources before moving forward. Under the prior 2007 rule the Imperial County Air Pollution Control District did submit an initial EE demonstration for comment and review to both USEPA and CARB

- (C)** *The Administrator may waive the Initial Notification of Potential Exceptional Event process on a case-by-case basis.*

The January 31, 2014 EE demonstration discussed the initial notification process by the Imperial County Air Pollution Control District. The initial notification was submitted to the California Air Resources Board May 28, 2015 under the provisions of the 2007 rule this was in advance of the revision which occurred October 2016. However, the Imperial County Air Pollution Control District had consultations with the California Air Resources before moving forward. Under the prior 2007 rule the Imperial County Air Pollution Control District did submit an initial EE demonstration for comment and review to both USEPA and CARB

**(c) Schedules and procedures. (3) Submission of demonstrations (iv)**

*The demonstration to justify data exclusion must include:*

- (A)** *A narrative conceptual model that describes the event(s) causing the exceedance or violation and a discussion of how emissions from the event(s) led to the exceedance or violation at the affected monitor(s);*

The January 31, 2014 EE demonstration contains a section which discusses the Conceptual model which describes the event that caused the exceedance. The Introduction and the Conceptual Model sections of the January 31, 2014 EE demonstration provides the background topographical and climatologically information surrounding the impacted area and provides trajectory information identifying the areas impacted by the "natural event". In addition, the section contains graphs and figures that provide time sequence analysis and concentration related impacts. **(Pages 1-18 sections I thru II.3)**

- (B)** *A demonstration that the event affected air quality in such a way that there exists a clear causal relationship between the specific event and the monitored exceedance or violation*

- (C)** *Analysis comparing the claimed event-influenced concentration(s) to concentration(s) at the same monitoring site at other times to support the requirement at paragraph (c )(3)(iv)(B) of this section. The Administrator shall not require a State to prove a specific percentile point in the distribution of data;*

- (D)** *A demonstration that the event was both not reasonably controllable and not reasonably preventable; and*

The January 31, 2014 EE demonstration provides evidence that a "high wind event" occurred elevating PM<sub>10</sub> concentrations from desert areas whose identified sources were controlled with Best Available Control Measures (BACM). Such "high wind events" are not preventable as they are meteorological systems. In the





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January 31, 2014 EE demonstration a large low pressure system moved through southern California as early as the evening of January 30, 2014 and continued through January 31, 2014. The weather system brought strong westerly winds across the mountains and desert and was then a "natural event". In addition because the identified sources were reasonably controlled with BACM then it is reasonable to conclude that human activity played little or no direct causal role and thus the event was not preventable or controllable.

**(E)** *A demonstration that the event was a human activity that is unlikely to recur at a particular location or was a natural event.*

The January 31, 2014 EE demonstration provides evidence that a "high wind event" occurred elevating PM<sub>10</sub> concentrations from desert areas whose identified sources were controlled with Best Available Control Measures (BACM). Such "high wind events" are not preventable as they are meteorological systems. In the January 31, 2014 EE demonstration a large low pressure system moved through southern California as early as the evening of January 30, 2014 and continued through January 31, 2014. The weather system brought strong westerly winds across the mountains and desert and was then a "natural event". In addition because the identified sources were reasonably controlled with BACM then it is reasonable to conclude that human activity played little or no direct causal role and thus the event was not preventable or controllable.



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## January 31, 2014 Exceptional Event Documentation Addendum

### FIGURE ADD-1 QCLCD – IC AIRPORT JANUARY 30, 2014

QUALITY CONTROLLED Local Climatological Data: IMPERIAL COUNTY AIRPORT

U.S. Department of Commerce  
National Oceanic & Atmospheric Administration

#### QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA (final) HOURLY OBSERVATIONS TABLE IMPERIAL COUNTY AIRPORT (03144) IMPERIAL, CA (01/2014)

National Climatic Data Center  
Federal Building  
151 Patton Avenue  
Asheville, North Carolina 28801

Elevation: -58 ft. below sea level  
Latitude: 32.834  
Longitude: -115.578  
Data Version: VER2

Date	Time (LST)	Station Type	Sky Conditions	Visibility (SM)	Weather Type	Dry Bulb Temp (F)	Dry Bulb Temp (C)	Wet Bulb Temp (F)	Wet Bulb Temp (C)	Dew Point Temp (F)	Dew Point Temp (C)	Rel Humd %	Wind Speed (MPH)	Wind Dir	Wind Gusts (MPH)	Station Pressure (in. hg)	Press Tend	Net 3-hr Chg (mb)	Sea Level Pressure (in. hg)	Report Type	Precip. Total (in)	Alti-meter (in. hg)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
30	0053	12	CLR	10.00		56	13.3	47	8.3	37	2.8	49	0	000		29.91			29.85	AA		29.85
30	0153	12	CLR	10.00		51	10.6	45	5.9	37	2.8	59	0	000		29.90			29.83	AA		29.84
30	0253	12	CLR	10.00		50	10.0	44	5.9	38	3.3	64	0	000		29.89			29.83	AA		29.83
30	0353	12	CLR	10.00		53	11.7	46	8.0	37	2.8	55	5	110		29.88			29.82	AA		29.82
30	0453	12	CLR	10.00		54	12.2	46	7.7	38	3.3	55	8	140		29.88			29.81	AA		29.82
30	0553	12	CLR	10.00		53	11.7	46	7.0	38	2.2	55	8	130		29.89			29.82	AA		29.83
30	0653	12	CLR	10.00		52	11.1	45	6.3	36	3.3	53	6	130		29.90			29.84	AA		29.84
30	0753	12	CLR	10.00		55	12.8	47	10.7	36	6.7	58	9	150		29.92			29.85	AA		29.86
30	0853	12	CLR	10.00		59	15.0	51	13.7	44	9.4	54	8	140		29.91			29.85	AA		29.85
30	0953	12	CLR	10.00		66	18.9	57	15.8	49	11.1	50	8	150		29.89			29.83	AA		29.83
30	1053	12	CLR	10.00		72	22.2	61	16.3	52	10.0	40	10	150		29.85			29.79	AA		29.79
30	1153	12	CLR	10.00		76	24.4	61	15.3	50	7.2	31	9	130		29.82			29.75	AA		29.76
30	1253	12	CLR	10.00		78	25.6	60	16.3	45	9.4	36	15	120		29.80			29.74	AA		29.74
30	1353	12	CLR	10.00		79	26.6	61	15.8	46	7.8	31	6	210		29.79			29.73	AA		29.73
30	1453	12	CLR	10.00		77	26.0	55	12.9	34	1.1	21	16	250		29.78			29.72	AA		29.72
30	1553	12	CLR	10.00		75	23.9	54	12.3	33	0.6	22	15	210		29.78			29.72	AA		29.72
30	1653	12	CLR	10.00		73	22.8	53	11.6	32	0.0	22	8	270		29.79			29.72	AA		29.73
30	1753	12	CLR	10.00		72	22.2	54	11.9	32	1.7	26	16	240	26	29.78			29.72	AA		29.72
30	1853	12	CLR	6.00	HZ	70	21.1	55	13.7	35	5.0	35	25	260	36	29.78			29.72	AA		29.72
30	1953	12	CLR	10.00		67	19.4	56	12.7	46	8.3	54	14	270	22	29.83			29.75	AA		29.75
30	2053	12	CLR	10.00		64	17.8	55	12.7	47	8.9	58	22	260	31	29.83			29.77	AA		29.77
30	2153	12	CLR	10.00		63	17.2	55	12.7	46	8.9	58	25	260	31	29.82			29.76	AA		29.76
30	2253	12	CLR	10.00		63	17.2	55	12.7	46	8.9	58	25	260	31	29.82			29.76	AA		29.76
30	2353	12	CLR	10.00		63	17.2	55	12.7	46	8.9	58	25	260	31	29.82			29.76	AA		29.76

Dynamically generated Tue Nov 24 12:19:57 EST 2015 via <http://www.ncdc.noaa.gov/qclcd/QCLCD>

**Fig Add-1:** Demonstrates the elevated wind speeds the evening of January 30, 2014. Wind speeds began increasing the evening before January 31, 2014 which continued into January 31, 2014. Elevated winds speeds peaked at 25 mph with gusts as high as 36 mph.



# AIR POLLUTION CONTROL DISTRICT

150 S 9<sup>TH</sup> Street, El Centro, CA 92243  
P 442.265.1800  
F 442.265.1799

## FIGURE ADD-2 QCLCD – IC AIRPORT JANUARY 31, 2014

11/10/2015

QUALITY CONTROLLED Local Climatological Data: IMPERIAL COUNTY AIRPORT

U.S. Department of Commerce  
National Oceanic & Atmospheric Administration

### QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA (final) HOURLY OBSERVATIONS TABLE IMPERIAL COUNTY AIRPORT (03144) IMPERIAL, CA (01/2014)

National Climatic Data Center  
Federal Building  
151 Patton Avenue  
Asheville, North Carolina 28801

Elevation: -58 ft. below sea level  
Latitude: 32.834  
Longitude: -115.578  
Data Version: VER2

Date	Time (LST)	Station Type	Sky Conditions	Visibility (SM)	Weather Type	Dry Bulb Temp		Wet Bulb Temp		Dew Point Temp		Rel Humd %	Wind Speed (MPH)	Wind Dir	Wind Gusts (MPH)	Station Pressure (in. hg)	Press Tend	Net 3-hr Chg (mb)	Sea Level Pressure (in. hg)	Report Type	Precip. Total (in)	Alti-meter (in. hg)
						(F)	(C)	(F)	(C)	(F)	(C)											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
31	0053	12	CLR	10.00		63	17.2	55	12.7	48	8.9	58	16	260		29.84			29.78	AA		29.78
31	0153	12	CLR	10.00		61	16.1	54	12.0	47	8.3	60	8	250		29.84			29.78	AA		29.78
31	0253	12	CLR	10.00		62	16.7	54	12.2	47	8.3	58	9	250		29.84			29.78	AA		29.78
31	0353	12	CLR	10.00		63	17.2	54	12.4	47	8.3	56	14	260		29.82			29.76	AA		29.76
31	0453	12	CLR	10.00		59	15.0	52	11.2	46	7.8	62	6	210		29.83			29.76	AA		29.77
31	0553	12	CLR	10.00		63	17.2	53	11.7	44	6.7	50	9	240		29.85			29.78	AA		29.79
31	0653	12	CLR	10.00		62	16.7	53	11.7	45	7.2	54	0	000		29.86			29.82	AA		29.82
31	0753	12	CLR	10.00		60	15.6	52	11.2	45	7.2	58	0	000		29.91			29.85	AA		29.85
31	0853	12	CLR	10.00		65	18.3	54	12.0	43	6.1	45	7	010		29.93			29.87	AA		29.87
31	0953	12	CLR	10.00		66	18.9	54	12.4	44	6.7	45	5	280		29.94			29.88	AA		29.88
31	1053	12	CLR	10.00		67	19.4	54	12.4	43	6.1	42	0	000		29.94			29.88	AA		29.88
31	1153	12	SCT060	10.00		67	19.4	54	12.4	43	6.1	42	17	230	25	29.92			29.86	AA		29.86
31	1253	12	BKN070	10.00		69	20.6	55	12.7	42	5.6	38	14	230		29.89			29.83	AA		29.83
31	1353	12	SCT060	10.00		71	21.7	56	13.1	42	5.6	35	21	240	26	29.88			29.82	AA		29.82
31	1453	12	CLR	10.00		70	21.1	55	12.5	40	4.4	34	18	240	29	29.86			29.80	AA		29.80
31	1553	12	CLR	10.00		67	19.4	53	11.5	39	3.9	36	18	250		29.88			29.82	AA		29.82
31	1653	12	CLR	10.00		64	17.8	50	10.2	36	2.2	36	18	250	28	29.89			29.83	AA		29.83
31	1753	12	CLR	10.00		61	16.1	49	9.4	36	2.2	39	14	250	25	29.90			29.84	AA		29.84
31	1853	12	CLR	10.00		59	15.0	49	9.3	38	3.3	46	14	250	23	29.90			29.84	AA		29.84
31	1953	12	CLR	10.00		58	14.4	49	9.3	39	3.9	49	17	250		29.90			29.83	AA		29.84
31	2053	12	CLR	10.00		57	13.9	48	9.0	39	3.9	51	15	250		29.92			29.85	AA		29.86
31	2153	12	CLR	10.00		57	13.9	48	8.8	38	3.3	49	15	260		29.92			29.85	AA		29.86
31	2253	12	CLR	10.00		56	13.3	47	8.5	38	3.3	51	13	270		29.91			29.85	AA		29.85
31	2353	12	CLR	10.00		56	13.3	48	8.8	39	3.9	53	14	260		29.92			29.86	AA		29.86

Dynamically generated Tue Nov 10 18:05:39 EST 2015 via <http://www.ncdc.noaa.gov/qclcd/QCLCD>

**Fig Add-2:** Demonstrates the continued elevated wind speeds into January 31, 2014. The elevated wind speeds on January 31, 2014 were sufficient to keep particulate matter suspended in the air, from the previous evening, causing an exceedance at the Brawley monitor.



# AIR POLLUTION CONTROL DISTRICT

150 S 9<sup>TH</sup> Street, El Centro, CA 92243  
P 442.265.1800  
F 442.265.1799

## FIGURE ADD-3 QCLCD – IC AIRPORT JANUARY 30, 2014

QUALITY CONTROLLED Local Climatological Data: NAF

U.S. Department of Commerce  
National Oceanic & Atmospheric Administration

### QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA (may be updated) HOURLY OBSERVATIONS TABLE NAF (23199) EL CENTRO, CA (01/2014)

National Climatic Data Center  
Federal Building  
151 Patton Avenue  
Asheville, North Carolina 28801

Elevation: -42 ft. below sea level  
Latitude: 32.816  
Longitude: -115.683  
Data Version: VER2

Date	Time (LST)	Station Type	Sky Conditions	Visibility (SM)	Weather Type	Dry Bulb Temp		Wet Bulb Temp		Dew Point Temp		Rel Humd %	Wind Speed (MPH)	Wind Dir	Wind Gusts (MPH)	Station Pressure (in. hg)	Press Tend	Net 3-hr Chg (mb)	Sea Level Pressure (in. hg)	Report Type	Precip. Total (in)	Alti-meter (in. hg)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
30	0050	5	CLR	10.00		51	10.6	43	6.3	34	1.1	52	0	000		29.89			29.90	AA		29.85
30	0150	5	CLR	10.00		52	11.1	43	6.2	32	0.0	47	0	000		29.88			29.88	AA		29.84
30	0250	5	CLR	10.00		54	12.2	45	7.1	34	1.1	47	0	000		29.87			29.88	AA		29.83
30	0350	5	CLR	10.00		50	10.0	44	6.1	37	2.2	61	0	000		29.88			29.88	AA		29.82
30	0450	5	FEW180 BKN250	9.00		49	9.4	43	6.9	38	3.3	64	3	160		29.87			29.88	AA		29.83
30	0550	5	SCT200 BKN250	8.00		50	10.0	44	4.7	32	3.0	56	3	130		29.87			29.87	AA		29.83
30	0650	5	FEW200 BKN250	9.00		47	8.3	41	7.7	32	3.3	57	0	000		29.88			29.89	AA		29.84
30	0750	5	SCT200 BKN250	10.00		53	11.7	46	10.2	38	6.1	58	5	120		29.90			29.90	AA		29.86
30	0850	5	SCT200 BKN250	10.00		58	14.4	50	13.2	43	8.9	54	8	130		29.90			29.90	AA		29.86
30	0950	5	FEW150 SCT200 BKN250	9.00		65	18.3	56	15.5	48	10.6	48	7	140		29.87			29.87	AA		29.83
30	1050	5	FEW150 BKN200	10.00		72	22.2	60	15.7	51	9.4	40	10	150		29.84			29.84	AA		29.80
30	1150	5	FEW150 BKN200	10.00		75	23.9	60	15.4	49	7.8	33	10	120		29.79			29.80	AA		29.75
30	1250	5	FEW060 FEW150 BKN200	10.00		77	25.0	60	14.2	35	1.7	18	22	210		29.78			29.78	AA		29.74
30	1350	5	FEW100 FEW150 BKN200	10.00		82	27.9	58	14.6	33	-0.6	16	23	230	31	29.76			29.76	AA		29.72
30	1450	5	FEW100 FEW150 BKN200	9.00		81	27.2	56	12.8	31	0.0	19	25	240	34	29.77			29.77	AA		29.73
30	1550	5	FEW060 SCT100 BKN150	10.00		78	25.6	55	12.8	32	1.1	22	22	230		29.76			29.77	AA		29.72
30	1650	5	FEW060 SCT100 SCT150	10.00		75	23.9	54	11.9	30	0.0	21	24	240	31	29.77			29.78	AA		29.73
30	1750	5	FEW060 SCT100 BKN150	10.00		74	23.3	53	11.32	30	0.0	21	24	240	31	29.77			29.78	AA		29.73
30	1850	5	FEW060 SCT100 BKN150	4.00		72	22.2	54	12.3	37	2.8	28	23	240	32	29.77			29.78	AA		29.74
30	1950	5	FEW060 SCT100 BKN150	9.00		66	20.8	55	13.4	42	7.8	47	29	250	39	29.80			29.81	AA		29.76
30	2050	5	FEW060 FEW100 SCT150	10.00		67	19.4	56	12.9	48	8.3	52	30	250	37	29.81			29.82	AA		29.77
30	2150	5	FEW100 FEW150 SCT200	10.00		65	18.3	55	12.9	47	8.9	56	26	250	37	29.82			29.82	AA		29.78
30	2250	5	CLR	10.00		64	17.8	55	12.7	48	8.9	58	18	240	28	29.82			29.83	AA		29.78
30	2350	5				63	17.2	55		48												

Dynamically generated Tue Nov 24 12:40:52 EST 2015 via <http://www.ncdc.noaa.gov/qclcd/QCLCD>

**Fig Add-3:** Demonstrates the continued elevated wind speeds into January 31, 2014. The elevated wind speeds on January 31, 2014 were sufficient to keep particulate matter suspended in the air, from the previous evening, causing an exceedance at the Brawley monitor. Wind speeds peaked to 30 mph with gusts as high as 41 mph



# AIR POLLUTION CONTROL DISTRICT

150 S 9<sup>TH</sup> Street, El Centro, CA 92243  
P 442.265.1800  
F 442.265.1799

## FIGURE ADD-4 QCLCD – IC AIRPORT JANUARY 30, 2014

11/10/2015

QUALITY CONTROLLED Local Climatological Data: NAF

U.S. Department of Commerce  
National Oceanic & Atmospheric Administration

### QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA (may be updated) HOURLY OBSERVATIONS TABLE NAF (23199) EL CENTRO, CA (01/2014)

National Climatic Data Center  
Federal Building  
151 Patton Avenue  
Asheville, North Carolina 28801

Elevation: -42 ft. below sea level  
Latitude: 32.816  
Longitude: -115.683  
Data Version: VER2

Date	Time (LST)	Station Type	Sky Conditions	Visibility (SM)	Weather Type	Dry Bulb Temp (F)	Wet Bulb Temp (F)	Dew Point Temp (F)	Rel Humid %	Wind Speed (MPH)	Wind Dir	Wind Gusts (MPH)	Station Pressure (in. hg)	Press Tend	Net 3-hr Chg (mb)	Sea Level Pressure (in. hg)	Report Type	Precip Total (in)	Alti-meter (in. hg)			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
31	0056	5	CLR	10.00		63	17.2	54	12.4	47	8.3	56	9	210		29.83		29.84	AA		29.79	
31	0156	5	CLR	10.00		62	16.7	53	11.7	45	7.2	54	7	200		29.83		29.83	AA		29.79	
31	0256	5	FEW031	10.00		63	17.2	55	12.7	48	8.9	58	11	220		29.81		29.82	AA		29.77	
31	0356	5	CLR	10.00		63	17.2	54	12.4	47	8.3	56	16	240	28	29.81		29.81	AA		29.77	
31	0456	5	CLR	10.00		57	13.9	50	9.9	43	6.1	60	5	290		29.81		29.82	AA		29.77	
31	0556	5	FEW030 SCT100 OVC180	10.00		63	17.2	53	11.7	44	6.7	50	20	240		29.83		29.84	AA		29.79	
31	0656	5	FEW025 SCT100 BKN180	10.00		63	17.2	54	11.9	45	7.2	52	15	240		29.87		29.87	AA		29.83	
31	0756	5	FEW025 SCT100 BKN180	10.00		63	17.2	53	11.7	44	6.7	50	5	VR		29.89		29.89	AA		29.85	
31	0856	5	FEW025 FEW100 BKN180	9.00		66	19.9	54	12.2	43	6.1	43	3	020		29.92		29.92	AA		29.88	
31	0956	5	FEW030 SCT100 BKN180	10.00		68	20.0	54	12.4	42	5.6	39	6	180		29.93		29.93	AA		29.89	
31	1056	5	FEW035 FEW100 BKN180	10.00		68	20.0	54	12.4	42	5.6	39	3	230		29.93		29.93	AA		29.89	
31	1156	5	FEW035 BKN060 BKN180	10.00		68	20.0	55	12.7	43	6.1	41	15	220		29.91		29.92	AA		29.87	
31	1256	5	FEW040 BKN065 BKN180	10.00		69	20.6	55	12.5	41	5.0	36	17	240	26	29.88		29.88	AA		29.84	
31	1356	5	SCT065 BKN120 BKN180	10.00		71	21.7	56	12.7	40	4.4	33	22	230	28	29.87		29.88	AA		29.83	
31	1456	5	FEW065 FEW120 SCT180	10.00		70	21.1	54	12.3	39	3.9	32	18	240	25	29.87		29.87	AA		29.83	
31	1556	5	FEW065 SCT120 SCT180	10.00		68	20.0	52	11.2	36	2.2	31	17	270		29.87		29.87	AA		29.83	
31	1656	5	FEW065 SCT120 BKN180	10.00		65	18.3	51	10.2	35	1.7	33	24	250	29	29.88		29.88	AA		29.84	
31	1756	5	FEW065 FEW120 SCT180	10.00		62	16.7	50	9.7	36	2.2	38	24	250		29.87		29.88	AA		29.83	
31	1856	5	CLR	10.00		60	15.6	49	9.6	38	3.3	44	15	250		29.89		29.90	AA		29.85	
31	1956	5	CLR	10.00		59	15.0	49	9.3	38	3.3	46	22	250		29.89		29.89	AA		29.85	
31	2056	5	CLR	10.00		58	14.4	48	9.1	38	3.3	48	17	250		29.90		29.91	AA		29.86	
31	2156	5	CLR	10.00		58	14.4	48	8.8	37	2.8	46	20	250		29.90		29.91	AA		29.86	
31	2256	5	CLR	10.00		57	13.9	48	8.6	37	2.8	47	16	260		29.91		29.91	AA		29.87	
31	2356	5	CLR	10.00		56	13.3	47	8.5	38	3.3	51	14	260		29.91		29.91	AA		29.87	

Dynamically generated Tue Nov 10 18:04:43 EST 2015 via <http://www.ncdc.noaa.gov/qclcd/QCLCD>

**Fig Add-4:** Demonstrates the elevated wind speeds the evening of January 30, 2014. Wind speeds began increasing the evening before January 31, 2014 which continued into January 31, 2014. Elevated winds speeds peaked at 30 mph with gusts as high as 41 mph.

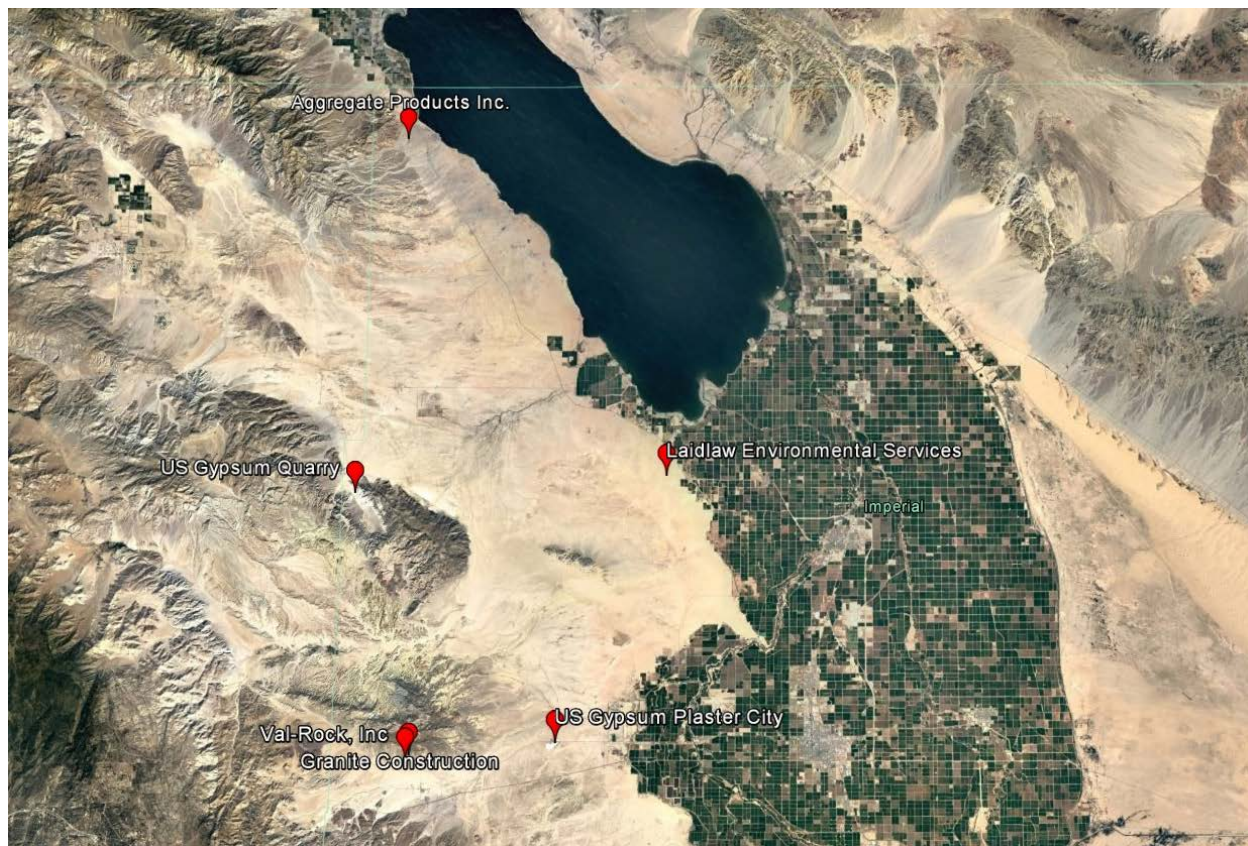




## AIR POLLUTION CONTROL DISTRICT

150 S 9<sup>TH</sup> Street, El Centro, CA 92243  
P 442.265.1800  
F 442.265.1799

**FIGURE ADD-5  
IDENTIFIED SOURCES**



**Fig Add-5:** The above map identifies those permitted sources located west, northwest and southwest of the Brawley monitor. In addition the desert area is managed either by the Bureau of Land Management or the California Department of Parks.

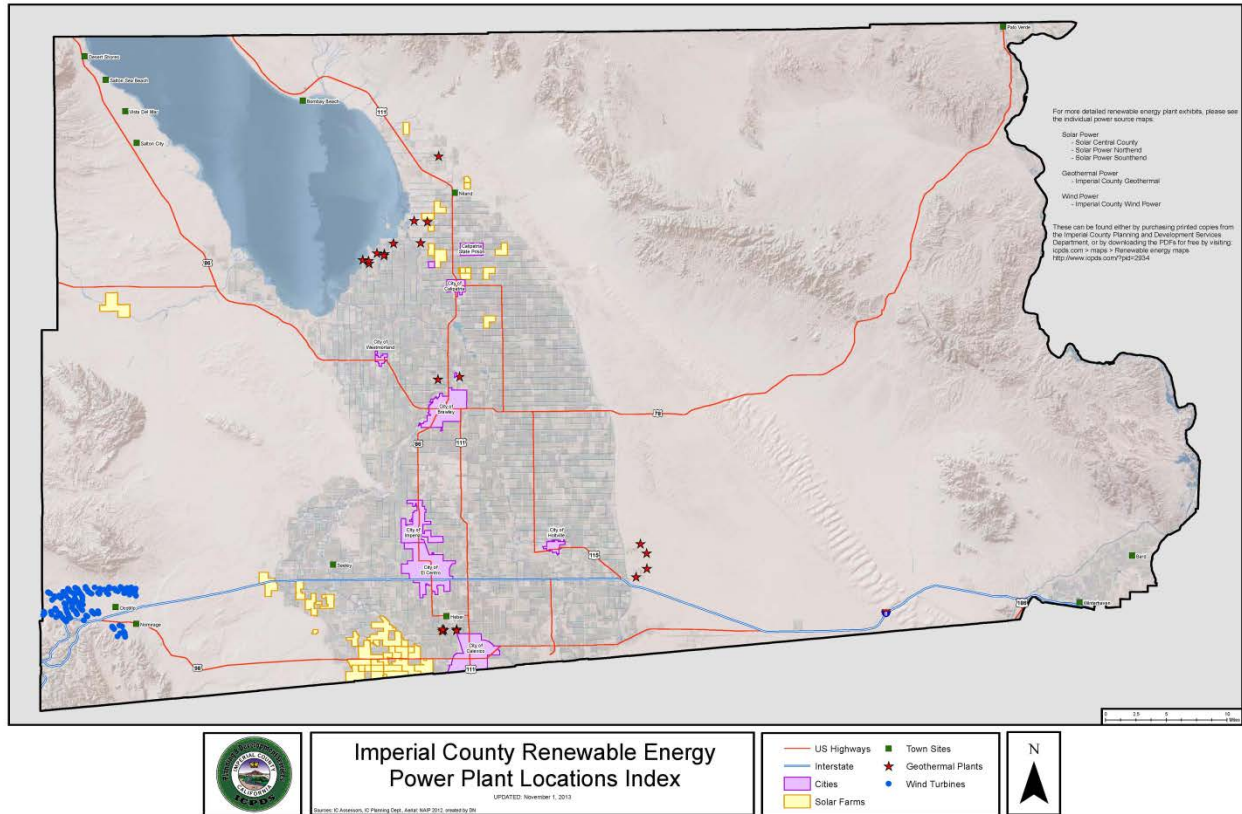




# AIR POLLUTION CONTROL DISTRICT

150 S 9<sup>TH</sup> Street, El Centro, CA 92243  
P 442.265.1800  
F 442.265.1799

**FIGURE ADD-6  
IDENTIFIED POWER SOURCES**



**Fig Add-6:** The above map identifies those power sources located west, northwest and southwest of the Brawley monitor. Blue indicate the Wind Turbines, Yellow are the solar farms and stars are geothermal plants